

CLAIMS:

We claim:

1. A medical apparatus for therapeutic treatment of foot ulcers, comprising:

5 a wound dressing for introduction of a negative pressure over a first region of a patient's foot including a wound;

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a foot wrap having an inflatable bladder for applying a compressive force over a second region of said patient's foot, concurrent with the introduction of said negative pressure, to compress veins of said patient's foot and thereby partially empty said veins;

10 a negative pressure source for supplying negative pressure to said wound dressing; and

a positive pressure source for supplying compressive force to said foot wrap.

2. The medical apparatus of claim 1, wherein at least some part of said foot wrap overlaps at least some part of said wound dressing such that at least a portion of said second region overlaps said first region.

3. The medical apparatus of claim 1, wherein at least some part of said foot wrap overlaps at least some part of said wound dressing such that at least a portion of said second region overlaps said wound.

- 20 4. The medical apparatus of claim 1, wherein:

at least a portion of said wound dressing comprises elastically compressible foam overlapping said wound; and

at least some part of said foot wrap overlaps at least some part of said wound dressing such that said second region overlaps said foam.

5. The medical apparatus of claim 1, wherein:

said negative pressure source comprises a suction pump; and

said positive pressure source comprises a ventable source of pressurized gas.

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6. The medical apparatus of claim 5, further comprising a control system for defining the negative application of pressure to said wound dressing and the positive application of force to said foot wrap.

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7. The medical apparatus of claim 6, wherein said negative application of pressure aspect of said control system comprises:

a vacuum sensor for measuring the negative pressure supplied to said wound dressing;

and

a first feedback mechanism for controlling, responsive to said measured negative pressure, said suction pump.

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8. The medical apparatus of claim 6, wherein said positive application of pressure aspect of said control system comprises:

a pressure transducer for measuring the positive force supplied to said foot wrap; and

a second feedback mechanism for controlling, responsive to said measured positive

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force, the venting of said source of pressurized gas into said foot wrap.

9. The medical apparatus of claim 6, wherein:

said suction pump and said ventable source of pressurized gas comprise a single integrated compressor and vacuum pump unit; and

said control system controls said integrated compressor and vacuum pump unit responsive to both negative pressure supplied to said wound and positive force supplied to said foot wrap.

10. An apparatus for treatment of ulcers located on the heel or metatarsal head regions of a foot, comprising:

a dressing for applying a negative pressure to the heel or metatarsal head regions of a foot; and

a compressive element for applying a positive compressive force to a compressible region of the foot including the plantar arch region.

Added